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(c) 2003 European Patent Office
 File 347: JAPIO Oct 1976-2003/Apr (Updated 030804)
          (c) 2003 JPO & JAPIO
 File 350: Derwent WPIX 1963-2003/UD, UM & UP=200355
          (c) 2003 Thomson Derwent
 ? ds
                 Description
Set
         Items
        187781
                 FONT?? OR CHARACTER?? OR LETTERS
S1
         78562
                 EMULAT? OR SIMULAT?
S2
                 (USING OR UTILI?) AND (SECOND OR ANOTHER) AND FONT??
S3
           301
S4
            95
                  (STRIPPING OR TAKING OR EDITING) AND (TOP(3N)LINE? OR BOTT-
              OM()LINE?)
             0
                 S4 AND (PIXEL? OR PEL OR PICTURE() ELEMENT?)
 S5
                 S1 AND (PART OR PARTS OR SECTION?? OR POINT?? OR SEGMENT??
 S6
         79619
              OR PORTION?? OR FRAGMENT? OR PARTIAL)
 S7
                 (GENERAT? OR CREAT? OR RENDER? OR PRODUC?) AND (ANOTHER OR
              SECOND OR ADDITIONAL) AND FONT??
 S8
        577204
                 COPYING OR STORING OR STORE
                 EIGHT (3N) FOURTEEN OR EIGHT (3N) SIXTEEN
 S9
           265
S10
            29
                 NINE (3N) FOURTEEN OR NINE (3N) SIXTEEN
                 9X16 OR 8X14
S11
S12
                 9X14 OR 8X14
 S13
         41172
                 (CHANG? OR REDUC? OR MINIMI? OR SHRINK? OR SHORTER? OR SMA-
              LLER? OR DECIMAT?) AND S1
S14
        120156
                 IC=G06T?
S15
          3360
                 S6 AND (PIXEL? OR PEL OR PICTURE() ELEMENT?)
S16
           657
                 S15 AND S14
                 S16 AND (CHANG? OR REDUC? OR MINIMI? OR SHRINK? OR SHORTE-
S17
           188
              R? OR SMALLER? OR DECIMAT?)
S18
             0
                 S17 AND S2
                 S17 AND TOP AND BOTTOM
 S19
             3
 S20
                 S1 AND S4 AND (CHANG? OR REDUC? OR MINIMI? OR SHRINK? OR S-
              HORTER? OR SMALLER? OR DECIMAT? OR ALTER?)
· S21
                 S20 NOT S19
 S22
                 S9:S12 AND FONT??
             1
                 S6 AND (GENERAT? OR CREAT? OR RENDER? OR PRODUC?) AND (ANO-
 S23
          3071
              THER OR SECOND OR ADDITIONAL)
S24
           957
                 S23 AND (STORAGE OR STORED OR DATABASE)
 S25
            71
                 S24 AND (PIXEL? OR PEL OR PICTURE() ELEMENT?)
 S26
                 S25 AND (CHANG? OR REDUC? OR MINIMI? OR SHRINK? OR SHORTER?
               OR SMALLER? OR DECIMAT? OR ALTER?)
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File 344: Chinese Patents Abs Aug 1985-2003/Mar

S27

18

S26 NOT (S19 OR S20)

19/3,K/1 (Item 1 from file: 347)

DIALOG(R) File 347: JAPIO

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05515716 \*\*Image available\*\*

IMAGE PROCESSING UNIT RECOGNIZING TOP AND BOTTOM OF ORIGINAL IMAGE

PUB. NO.: 09-130516 [JP 9130516 A] PUBLISHED: May 16, 1997 (19970516)

INVENTOR(s): NABESHIMA TAKAMOTO

HASHIMOTO HIDEYUKI IMAIZUMI SHOJI SAKATANI KAZUTOMI

APPLICANT(s): MINOLTA CO LTD [000607] (A Japanese Company or Corporation),

JP (Japan)

APPL. NO.: 07-303341 [JP 95303341] FILED: October 30, 1995 (19951030)

IMAGE PROCESSING UNIT RECOGNIZING TOP AND BOTTOM OF ORIGINAL IMAGE

INTL CLASS: H04N-001/00; G06T-007/00; G06K-009/20; H04N-001/387

#### ABSTRACT

PROBLEM TO BE SOLVED: To provide the image processing unit recognizing automatically top and bottom of an original image...
...SOLUTION: Parts of capital letters and small letters used in an

English font original exceed over the mean line and under the base line, exceeding over the mean line used in the and number of the letters original is more than number of letters under the base line. Number of of the letters in the arranged direction of the picture elements letters is accumulated to generate a histogram shaped shown in figure (b) and let peaks in the histogram at the upper part and the lower part of the x-height (h), that is, on the mean line and the base line be edges el and e2 respectively, then there exists a smaller peak p1 being the accumulated picture elements of the letters higher than the mean line above the edge el in the histogram and also exists a smaller peak p2 being the accumulated picture elements of the letters lower than the base line below the edge e2 in the histogram. The side of the original where the smaller peak pl is in existence is discriminated to be the top of the character string because the frequency of the use of the letters above the mean line is more than that of the letters below the base line.

19/3,K/2 (Item 2 from file: 347)

DIALOG(R) File 347: JAPIO

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05123997 \*\*Image available\*\*

VIDEO PRINTER

PUB. NO.: 08-079497 [JP 8079497 A] PUBLISHED: March 22, 1996 (19960322)

INVENTOR(s): KAMIKUBOTA MASAFUMI

APPLICANT(s): FUJI PHOTO FILM CO LTD [000520] (A Japanese Company or

Corporation), JP (Japan)

APPL. NO.: 06-210089 [JP 94210089] FILED: September 02, 1994 (19940902)

INTL CLASS: H04N-001/387; B41J-005/30; G06T-003/60; H04N-001/23

#### **ABSTRACT**

PURPOSE: To secure coincidence of directions between video images and character images of a photographing date, etc., by changing automatically these two directions...

...image memory 15 with coincidence secured between up-dot direction of the memory 15 and top - bottom direction of the video images. The character data obtained by evolving the character images of a photographing date, etc., are written in a RAM 29 in the same direction as the up-down direction of characters. In a full-size mode, the image and character data are read out of both memories 15 and 29 respectively form the left to the right and by each line consisting of pixels arrayed in the vertical direction. In a half-size mode, the image data are read...

... memory 15 from the upper side to the lower side by each line consisting of pixels arrayed in the horizontal direction and then thinned and reduced after a 90 deg. turn. Meanwhile the character images are read out of the RAM 29 from the upper side to the lower side by each line consisting of pixels arrayed in the horizontal direction and undergo the vertical/horizontal conversion against the video images. Then both video and character images are set in each other and synthesized together through an image synthesization part 21, and these synthesized images are printed.

19/3,K/3 (Item 3 from file: 347)

DIALOG(R) File 347: JAPIO

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04853643 \*\*Image available\*\*
SYMBOL DETECTOR

PUB. NO.: 07-146243 [JP 7146243 A] PUBLISHED: June 06, 1995 (19950606)

INVENTOR(s): NAGASAKI HIROSHI KIMURA YORIAKI

APPLICANT(s): MITSUBISHI ELECTRIC CORP [000601] (A Japanese Company or

Corporation), JP (Japan)
APPL. NO.: 05-293536 [JP 93293536]
FILED: November 24, 1993 (19931124)

INTL CLASS: G01N-021/88; G06T-007/00

## ABSTRACT

... wherein a binary-coded image stored is scanned from a specified direction to determine a **changing point** from a non-symbol image to a symbol image and the symbol image at the **changing point** is altered to the non-symbol image to remove effect by the seepage of ink...

...CONSTITUTION: A character , mark and the like to be detected are taken with a camera 1 and binary coded with an A/D converter of a binary coding processing section 2a to be stored into an image memory 2c of an image memory block 11...

...2e is taken in to be scanned downward to the right from the left and pixels of black are turned to white at the changing point where the pixels of the image change to the black from white to be stored into an image memory 2f. The same...

...right to the left and downward to be stored into a memory 2g, from the top to the bottom and from the left to the right to be stored into a memory 2h and from the bottom to the top and from the left to the right to be stored into a memory 2i. An image data stored is rearranged in a fine line by ANDing computation for each pixel and is stored into an image memory 2j after the removal of the effect by...

21/3,K/1 (Item 1 from file: 347)

DIALOG(R) File 347: JAPIO

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03089262 \*\*Image available\*\*

CHARACTER PROCESSOR

PUB. NO.: 02-064762 [JP 2064762 A] PUBLISHED: March 05, 1990 (19900305)

INVENTOR(s): WADA YUZO

APPLICANT(s): CANON INC [000100] (A Japanese Company or Corporation), JP

(Japan)

APPL. NO.: 63-214872 [JP 88214872] FILED: August 31, 1988 (19880831)

JOURNAL: Section: P, Section No. 1053, Vol. 14, No. 249, Pg. 51, May

28, 1990 (19900528)

#### CHARACTER PROCESSOR

#### ABSTRACT

PURPOSE: To make cursor operation easy and to make **editing** work, etc., efficient by **changing** the form of the cursor of a display according to positional relation in a document...

... cursor is investigated. When the cursor is positioned between a top margin 1 and a **top** margin proximate **line** 5, the cursor is lighted in the form of 2-2 and processing is ended...

21/3,K/2 (Item 2 from file: 347)

DIALOG(R) File 347: JAPIO

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01891568 \*\*Image available\*\*

ELECTRONIC TYPEWRITER

PUB. NO.: 61-105668 [JP 61105668 A] PUBLISHED: May 23, 1986 (19860523)

INVENTOR(s): KAWASHIMA MASAMITSU

APPLICANT(s): MITSUBISHI ELECTRIC CORP [000601] (A Japanese Company or

Corporation), JP (Japan)

APPL. NO.: 59-227213 [JP 84227213] FILED: October 29, 1984 (19841029)

JOURNAL: Section: P, Section No. 502, Vol. 10, No. 288, Pg. 28,

September 30, 1986 (19860930)

#### ABSTRACT

PURPOSE: To enable to continuously process **editing** /proofing with easy operations, by moving the sentence to be corrected to the next line...

... next to the last position of the line, short sound is issued to inform the **change** of line, and next line is read out from a memory 8, and displayed in the **character** display part 15 setting the cursor at the **top** of the **line**, and then completes the rightward movement of the cursor. When the cursor is not at...

... In this way, by only one kind of operation of the cursor rightward movement key, **editing** , correction and confirmation can be done to the sentences from the beginning to the end...

21/3,K/3 (Item 3 from file: 347)

DIALOG(R) File 347: JAPIO

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01861560 \*\*Image available\*\*
FACSIMILE EQUIPMENT

PUB. NO.: 61-075660 [JP 61075660 A] PUBLISHED: April 18, 1986 (19860418)

INVENTOR(s): KIKUCHI MASAYUKI
HANAZAWA KAZUOKI

APPLICANT(s): OKI ELECTRIC IND CO LTD [000029] (A Japanese Company or

Corporation), JP (Japan)

APPL. NO.: 59-196748 [JP 84196748] FILED: September 21, 1984 (19840921)

JOURNAL: Section: E, Section No. 431, Vol. 10, No. 248, Pg. 17, August

26, 1986 (19860826)

#### ABSTRACT

PURPOSE: To eliminate the necessity to make edition for each image line and top shorten the time for edition remarkably by providing a memory for 1 character line and a changeover switch...

...CONSTITUTION: A character pattern stored in an ROM is edited according to an editing program, and image data for 1 character line are edited in an RAM. A printing section and image line data D7 on...

...data are transferred and printed. By making this process until DC, image data for 1 character line are transferred and printed.

## 21/3,K/4 (Item 1 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

007956783 \*\*Image available\*\* WPI Acc No: 1989-221895/198931

XRPX Acc No: N89-169316

Automatic page end feature for an electronic typewriter - shifts effective page and point to shift or phan line of next to next page

Patent Assignee: IBM CORP (IBMC )

Inventor: COOK S A; GERSTLE P J; SMITH D R; STILZ K R

Number of Countries: 006 Number of Patents: 003

Patent Family:

Kind Date Applicat No Kind Date Week Patent No 19890802 EP 88480079 Α 19881122 198931 EP 325883 В Α 19890919 198943 BR 8900351 Α US 4889439 Α 19891226 US 88149805 Α 19880129 199008

Priority Applications (No Type Date): US 88149805 A 19880129

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

EP 325883 A E 12

Designated States (Regional): DE FR GB IT

US 4889439 A 12

...Abstract (Basic): ending to accomodate the widow line on the present page (11) rather than forcing the line to the top of the next page

. . .

- ... The text is not **altered** in the memory of the typewriter and no stop codes or page end codes are...
- ... Abstract (Equivalent): As each character is played, the line of text in which it resides is checked to determine its...
- ...continual checking of the relative locations, and does not require page ending stop codes. If **editing** occurs, which shifts the text, the processing of the text codes, as the text is...

22/3,K/1 (Item 1 from file: 347)

DIALOG(R) File 347: JAPIO

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04259190 \*\*Image available\*\*

CHARACTER FONT READ ONLY MEMORY AND CHARACTER FONT READ ONLY MEMORY ACCESS CIRCUIT

PUB. NO.: 05-250890 [JP 5250890 A] PUBLISHED: September 28, 1993 (19930928)

INVENTOR(s): KOBAYASHI MITSURU

APPLICANT(s): NEC NIIGATA LTD [491611] (A Japanese Company or Corporation),

JP (Japan)

APPL. NO.: 04-045145 [JP 9245145]

FILED: March 03, 1992 (19920303)

JOURNAL: Section: P, Section No. 1672, Vol. 18, No. 14, Pg. 160,

January 11, 1994 (19940111)

CHARACTER FONT READ ONLY MEMORY AND CHARACTER FONT READ ONLY MEMORY ACCESS CIRCUIT

# ABSTRACT

... a memory capacity without adding an external circuit by storing prescribed data in a character **font** ROM and performing a prescribed transformation by an address transforming unit...

...CONSTITUTION: A character **font** ROM 3 stores the data which contain letter face sections of each character **font** data without the top and the bottom body face sections and '0' data of **eight** bits or **sixteen** bits in which prescribed addresses are stored. During a reading, an address 7 is supplied...

... a prescribed transformation to an address 7. The transformed address 8 is supplied to a **font** ROM 3 and the character **font** data are read by a ROM output signal 9 without using an expander.

27/3,K/1 (Item 1 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

013362902 \*\*Image available\*\* WPI Acc No: 2000-534841/200049

XRPX Acc No: N00-395692

Mapping apparatus for storage of bitmap font data within data processing systems, comprises two lookup tables for generating address from information in first table using error value and position N within second table

Patent Assignee: ARM LTD (ARMA-N); ADVANCED RISC MACHINES LTD (ADRI-N)

Inventor: SYMES D; SYMES D H

Number of Countries: 006 Number of Patents: 007

Patent Family:

| Patent No     | Kind | Date      | App | olicat No  | Kind | Date     | Week   |   |
|---------------|------|-----------|-----|------------|------|----------|--------|---|
| GB 2346470    | A    | 20000809  | GB  | 992664     | Α    | 19990205 | 200049 | В |
| JP 2000227789 | A    | 20000815  | JΡ  | 99180722   | Α    | 19990625 | 200054 |   |
| CN 1263306    | A    | 20000816  | CN  | 99108958   | Α    | 19990705 | 200055 |   |
| US 6236342    | В1   | 20010522  | US  | 99306408   | A    | 19990506 | 200130 |   |
| KR 2000076581 | Α    | 20001226  | KR  | 20004843   | A    | 20000201 | 200134 |   |
| TW 427079     | A    | 2001.0321 | TW  | 99107408   | A    | 19990506 | 200151 |   |
| US 6304198    | В1   | 20011016  | US  | 99306408   | A    | 19990506 | 200164 |   |
|               |      |           | US  | 2000671122 | Α    | 20000928 |        |   |

Priority Applications (No Type Date): GB 992664 A 19990205

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

GB 2346470 A 27 H03M-007/42
JP 2000227789 A 10 G09G-005/22
CN 1263306 A G06F-012/04
US 6236342 B1 H03M-007/40
KR 2000076581 A G06F-012/02
TW 427079 A H03M-007/40

US 6304198 B1 H03M-007/40 Div ex application US 99306408

Mapping apparatus for storage of bitmap font data within data processing systems, comprises two lookup tables for generating address from information in first table using error value and position N within second table

### Abstract (Basic):

- ... Pictograph **font characters** represented by **character** codes (2) is used to determine an address (8) within a variable length coded data...
- ... Table 1 returns an initial offset HuffOff, an average size AvSz of data for a character and a pointer TB2Off to a second Table 2. The pointer specifies the beginning of a range of entries in the second table to be matched against rest of the character code to lookup an error value Err, this leads to the generation of the address (8).
- ... CLAIM is also included for a method of mapping an A-bit code to a **storage** location within a memory of variable length code data representing A-bit code...
- ... For storage of bitmap font data within data processing systems...
- ... Reduces the overall storage capacity needed for lookup operations by realization that the position of the variable length coded data corresponding to a particular character can be estimated with only the error in that estimation having to be stored for an individual

#### character .

... The figure illustrates a technique for mapping an A-bit font character code to a storage location within a memory holding variable length coded data representing a pixel bitmap of that character . ... Title Terms: STORAGE; 27/3,K/2 (Item 2 from file: 350) DIALOG(R) File 350: Derwent WPIX (c) 2003 Thomson Derwent. All rts. reserv. \*\*Image available\*\* 012244286 WPI Acc No: 1999-050393/199905 XRPX Acc No: N99-037260 Dot matrix type LCD device - has selector which chooses dot patterns held by first and second data latches that should be relayed to the electrodes arranged in LCD Patent Assignee: OKI ELECTRIC IND CO LTD (OKID ); OKI MICRO DESIGN MIYAZAKI KK (OKID ) Number of Countries: 001 Number of Patents: 001 Patent Family: Applicat No Kind Patent No Kind Date Date Week

JP 10301542 A 19981113 JP 97112506 A 19970430 199905 B
Priority Applications (No Type Date): JP 97112506 A 19970430

Patent Details:
Patent No Kind Lan Pg Main IPC Filing Notes
JP 10301542 A 10 G09G-003/36

- ... has selector which chooses dot patterns held by first and second data latches that should be relayed to the electrodes arranged in LCD ... Abstract (Basic): includes an LCD (11) which contains x electrodes (11x) orthogonally crossing with y electrodes (11y). Pixels are shown on the intersecting portion of the electrodes through the drive voltage sequentially applied to the electrodes. Characters are shown on the 1CD by grouping the pixels into the corresponding character groups. The code corresponding to the position by which the characters are shown on the LCD is stored into a RAM (12). A character pattern is then output from a ROM (13) based on the code read out from...
- ...The dot pattern corresponding to the sequentially-relayed codes is produced by a character pattern generating unit. Dot patterns equivalent to one character line is held by a data latch (15), while dot patterns equal to one line are output from a second RAM (21) and held by a second data latch (22). Based on selecting signal (SEL), a selector (31) chooses the dot patterns...

...ADVANTAGE - Reduces operating and component costs...
...Title Terms: SECOND;

27/3,K/3 (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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010972073 \*\*Image available\*\*
WPI Acc No: 1996-469022/199647

XRPX Acc No: N96-395264

Image generation appts for performing texture mapping - calculates brightness value at each pixel position based on additional attribute value at each pixel position and is then displayed on display screen

Patent Assignee: NEC CORP (NIDE )

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week
JP 8235379 A 19960913 JP 9559862 A 19950223 199647 B

Priority Applications (No Type Date): JP 9559862 A 19950223

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

JP 8235379 A 10 G06T-015/40

Image generation appts for performing texture mapping...

- ...calculates brightness value at each pixel position based on additional attribute value at each pixel position and is then displayed on display screen
- ...Abstract (Basic): The image generation appts has a table in which the image corresponding to a number of objects defined in 3-D space, is stored. The optical reflective transparent character of data is displayed. An optical setting part stores the object data containing a corresponding feature data of an object. An output part (3) outputs the pixel position in the order of priority on the screen corresponding to a number of objects displayed on the screen. A pixel value calculation part (2) calculates the pixel value which is not to be displayed on the screen, based on the depth and...
- ...The pixel which is output in the order of priority is displayed without erasing. The mapping part calculates an additional attribute value at each pixel position on the screen, where the image corresponding to an object is displayed by an acquisition to the attribute value and mapping being based on the corresponding position of pixel output in an order of priority. A brightness calculation part (5) calculates the brightness value of each concerned pixel position based on the additional attribute value, for mapping. A display part displays the image corresponding to the object of a number of screen...
- ... ADVANTAGE Enables display of semi-transparent object. Reduces number of processing...
- ... Title Terms: GENERATE ;

27/3,K/4 (Item 4 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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010646505 \*\*Image available\*\*
WPI Acc No: 1996-143459/199615

XRPX Acc No: N96-120234

Pattern and character display method for graphic display device - involves providing pattern and character display that is meaningful by comparing with that stored in memory

Patent Assignee: FUJI ELECTRIC CO LTD (FJIE ); FUJIFACON CORP (FUJX )

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week

JP 8030255 A 19960202 JP 94162559 A 19940715 199615 B

Priority Applications (No Type Date): JP 94162559 A 19940715

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

JP 8030255 A 9 G09G-005/36

Pattern and character display method for graphic display device...

- ...involves providing pattern and character display that is meaningful by comparing with that stored in memory
- ...Abstract (Basic): of a memory (3) to store the pattern data (OD) containing the pattern and the **character**. The primary pattern data to be displayed is selected from the memory and transferred to a **second** memory (2) by a control operation device (1). A processing unit (OSP) processes the primary pattern data and scale information (C2) to **generate** a pattern type code rate of scale and the dimension of the pattern...
- ...The pattern and graphic display character obtained by scale generation of primary pattern data is compared with the processing information stored in the first memory by a processing information part (PIF). The judgment of whether the pattern and the character is meaningful, when compared to the data stored in the first memory is carried out. The display data (DD) corresponding to each pixel is formed from the meaningful judged data. The display data thus formed is displayed by...
- ...ADVANTAGE Provides effective display at high speed. Provides legible and reduced pattern display in short time...
- ... Title Terms: CHARACTER;

### 27/3,K/5 (Item 5 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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010493305 \*\*Image available\*\*
WPI Acc No: 1995-394625/199551
Related WPI Acc No: 1991-289758

XRPX Acc No: N95-287762

Colour image processing apparatus for example laser printer - inputs image information and converts it to dot information for each colour component which is stored in memory and buffered, it is read out from buffer and fed to image former in synchronisation with synchronisation signal

Patent Assignee: CANON KK (CANO )

Inventor: KASHIHARA A; KATAOKA H; OHTAKE M; SAKAKI E; SETO K; TORISAWA A;
 UENO F; ITO Y

Number of Countries: 005 Number of Patents: 006

Patent Family:

Patent No Kind Date Applicat No Kind Date Week A2 19951122 EP 95113500 19910328 199551 EP 683601 Α EP 91105075 19910328 EP 683601 A3 19960327 Α 199624 EP 95113500 19910328 Α US 5596426 Α 19970121 US 91675278 Α 19910326 199710 US 93139050 19931021 Α US 94263408 19940621 Α US 95479466 Α 19950607

US 5629781 Α 19970513 US 91675278 19910326 199725 US 93139050 Α 19931021 Α US 94263408 19940621 US 95475497 Α 19950607 20020213 EP 91105075 Α 19910328 200212 EP 683601 В1 EP 95113500 Α 19910328 DE 69132933 Ε 20020321 DE 632933 Α 19910328 200227 EP 95113500 Α 19910328 Priority Applications (No Type Date): JP 90199480 A 19900726; JP 9086164 A 19900330 Patent Details: Patent No Kind Lan Pg Main IPC Filing Notes A2 E 43 H04N-001/64 Designated States (Regional): DE FR GB IT EP 683601 А3 Div ex application EP 91105075 Cont of application US 91675278 US 5596426 40 HO4N-001/46 Cont of application US 93139050 Cont of application US 94263408 Cont of application US 91675278 US 5629781 40 HO4N-001/54

EP 683601 B1 E G06K-015/00 Div ex application EP 91105075
Div ex patent EP 449313
Designated States (Regional): DE FR GB IT
DE 69132933 E G06K-015/00 Based on patent EP 683601

... inputs image information and converts it to dot information for each colour component which is stored in memory and buffered, it is read out from buffer and fed to image former...

Cont of application US 93139050 Div ex application US 94263408

- ... Abstract (Basic): the image information into dot information for each colour component. The converted dot information is **stored** in memory (2 and 3). The dot information read from the memory is buffered (31...
- ...former in synchronisation with a synchronising signal from the image former. The converter includes a **second** memory for storing a bitmap or outline **font** corresp. to a text code...
- ...printer for forming images of several colours based on image signals transmitted from host computer **stored** in auxiliary **storage** disk...
- ...ADVANTAGE Transmits image continuously at high speed asynchronously with printer output. Cost is **reduced** by **reducing** memory cost, and processing images at high speed...
- ...Abstract (Equivalent): a plurality of **storage** means, each for storing image data corresponding to plural **portions**, each of which includes a plurality of **pixels**, in one page...
- ...a plurality of read means for respectively reading out the image data corresponding to different **portions** from said plurality of **storage** means in parallel; and...
- ...output means for receiving the image data corresponding to the plurality of the **portions** which are in parallel read out from said plurality of **storage** means by said plurality of read means, and serially outputting the image data as one...
- ...wherein each **portion** read in parallel by said plurality of read means is different from one **another**.

...A color image processing apparatus for receiving code data supplied from an external apparatus, **generating** dotted image data based on the code data, and outputting the dotted image data, comprising...

...image data **generating** means for **generating** dotted image data for each color component based on the code data...

... storage means for storing the dotted image data for one page...

...means capable of buffering one scan line of the dotted image data read from said **storage** means

... Title Terms: STORAGE;

# 27/3,K/6 (Item 6 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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009703323 \*\*Image available\*\*

WPI Acc No: 1993-396876/199350

Related WPI Acc No: 1996-457205; 1998-389700; 2001-543085

XRPX Acc No: N93-306755

Label printing appts. - stores font data for number of characters and determines printing and displaying sizes according to appropriate scaling factors

Patent Assignee: ESSELTE DYMO NV (ESSP ); ESSELTE NV (ESSP )

Inventor: BEADMAN M A; MARTIN P

Number of Countries: 006 Number of Patents: 012

Patent Family:

| Ρ, | acenc ramily | •    |          |     |          |      |          |        |   |
|----|--------------|------|----------|-----|----------|------|----------|--------|---|
| P  | atent No     | Kind | Date     | App | licat No | Kind | Date     | Week   |   |
| Ε  | P 574225     | A1   | 19931215 | ΕP  | 93304435 | A    | 19930608 | 199350 | В |
| A  | J 9340047    | Α    | 19931216 | ΑU  | 9340047  | A    | 19930604 | 199406 |   |
| Α  | J 666940     | В    | 19960229 | ΑU  | 9340047  | A    | 19930604 | 199616 |   |
| Α  | J 9650839    | Α    | 19960711 | ΑU  | 9340047  | A    | 19930604 | 199635 |   |
|    |              |      |          | ΑU  | 9650839  | Α    | 19960423 |        |   |
| D  | E 9321292    | U1   | 19970109 | DE  | 93U21292 | U    | 19930608 | 199707 |   |
|    |              |      |          | EΡ  | 96110283 | A    | 19930608 |        |   |
| Ū  | S 5595450    | Α    | 19970121 | US  | 9371120  | A    | 19930602 | 199710 |   |
| Ε  | P 574225     | В1   | 19970219 | EΡ  | 93304435 | A    | 19930608 | 199713 |   |
| D  | € 69308173   | E    | 19970327 | DE  | 608173   | A    | 19930608 | 199718 |   |
|    |              |      |          | EΡ  | 93304435 | Α    | 19930608 |        |   |
| A  | J 682129     | В    | 19970918 | ΑU  | 9340047  | A    | 19930604 | 199746 |   |
|    |              |      |          | ΑU  | 9650839  | A    | 19960423 |        |   |
| U  | 5 5733051    | A    | 19980331 | US  | 9371120  | A    | 19930602 | 199820 |   |
|    |              |      |          | US  | 96692664 | Α    | 19960806 |        |   |
| U  | S 5967679    | A    | 19991019 | US  | 9371120  | Α    | 19930602 | 199950 |   |
|    |              |      |          | US  | 96692664 | A    | 19960806 |        |   |
|    |              |      |          | US  | 9846633  | Α    | 19980324 |        |   |
| U  | s 6079889    | Α    | 20000627 | US  | 9371120  | A    | 19930602 | 200036 |   |
|    |              |      |          | US  | 96692664 | Α    | 19960806 |        |   |
|    |              |      |          | US  | 9846635  | Α    | 19980324 |        |   |
|    |              |      |          |     |          |      |          |        |   |

Priority Applications (No Type Date): GB 93748 A 19930115; GB 9212439 A 19920611

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

EP 574225 A1 E 13 B41J-003/46

Designated States (Regional): DE FR GB IT

| ΑU | 9340047    | A      |     | G06K-015/02   |                                  |
|----|------------|--------|-----|---------------|----------------------------------|
| ΑU | 666940     | В      |     | G06K-015/02   | Previous Publ. patent AU 9340047 |
| ΑU | 9650839    | A      |     | G06K-015/02   | Div ex application AU 9340047    |
| DE | 9321292    | U1 4   | 14  | B41J-002/325  | Application no. EP 96110283      |
| US | 5595450    | A 1    | 12  | B41J-003/46   |                                  |
| EΡ |            |        | _   | B41J-003/46   |                                  |
|    | Designated | States | ( F | Regional): DE | FR GB IT                         |
| DE | 69308173   | E      |     | B41J-003/46   | Based on patent EP 574225        |
| ΑU | 682129     | В      |     | G06K-015/02   | Div ex application AU 9340047    |
|    |            |        |     |               | Previous Publ. patent AU 9650839 |
| US | 5733051    | A 1    | 11  | B41J-003/46   | Cont of application US 9371120   |
| US | 5967679    | A      |     | B41J-011/26   | Cont of application US 9371120   |
|    |            |        |     |               | Div ex application US 96692664   |
|    |            |        |     |               | Cont of patent US 5595450        |
|    |            |        |     |               | Div ex patent US 5733051         |
| US | 6079889    | A      |     | B41J-011/26   | Cont of application US 9371120   |
|    |            |        |     |               | Cont of application US 96692664  |
|    |            |        |     |               | Cont of patent US 5595450        |
|    |            |        |     |               | Cont of patent US 5733051        |

- ... stores font data for number of characters and determines printing and displaying sizes according to appropriate scaling factors
- ...Abstract (Basic): The label printing apparatus includes a keyboard for selecting characters for composing a label to be printed, display for the characters selected, and a printer for printing the characters on an image receiving tape to produce a label. The printing apparatus further comprises a memory for font data defining a number of characters and a controller for recalling font data for characters selected at the keyboard...
- ...The controller is operable to apply a first scaling factor to the **font** data to **produce pixel** data for driving the display, and a **second** scaling factor to **produce pixel** data for driving the printer. The **font** data is Bezier data, defining Bezier **points** for lines and curves of the **character**.
- ...ADVANTAGE Provides wider range of **character** sizes for printing or displaying which is continuously scalable allowing label to be **reduced** in size while maintaining its proportions
- means (106) for selecting characters for composing a label to be printed; display means (108) for displaying the characters selected at the input means (106); printing means (16) for printing said characters on an image receiving tape (4) to produce a label; storage means (102) for storing common font data defining a plurality of characters; and a controller (100) for recalling common font data for characters selected at said input means (106) and operable to apply a first scaling factor to said common font data to produce display pixel data for driving the display means (108) to display the character and a second scaling factor to said font data to produce print pixel data for driving said printing means (16) to print the character whereby the characters displayed on the display means (108) resemble the characters which are printed by the printing means (16) and differ only in their resolution...
- ... Abstract (Equivalent): input means for selecting characters for composing a label to be printed...
- ...display means for displaying the characters selected at the input

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...printing means for printing said characters on an image receiving tape
   to define a label...
```

- ...cutting means for cutting off a portion of said image receiving tape including said label...
- ... storage means for storing common font data defining each of a plurality of characters; and ...
- ...a controller for recalling said common font data for each character selected at said input means and operable to apply a first scaling factor to said common font data to produce display pixel data for driving the display means to display the character and a second scaling factor to said font data to produce print pixel data for driving said printing means to print the character whereby the characters displayed on the display means exactly resemble the characters which are printed by the printing means and differ only in their resolution
- ... Title Terms: STORAGE;

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27/3,K/7
             (Item 7 from file: 350)
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DIALOG(R) File 350: Derwent WPIX

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\*\*Image available\*\* 009082218 WPI Acc No: 1992-209635/199226

XRPX Acc No: N92-158995

Display control circuit and external memory for TV games - stores picture and mask data in memory and generates masking signal for range of position data and uses signal to gate picture data

Patent Assignee: NINTENDO CO LTD (NINT ); RICOH KK (RICO ) Inventor: NISHIUMI S; OTAKE M; OTSUKI T; TAKAHASHI T

Number of Countries: 009 Number of Patents: 011

Patent Family:

| rat | ent ramily. | •    |          |             |              |          |        |   |
|-----|-------------|------|----------|-------------|--------------|----------|--------|---|
| Pat | ent No      | Kind | Date     | Applicat No | Kind         | Date     | Week   |   |
| EΡ  | 491468      | A2   | 19920624 | EP 91310575 | A            | 19911115 | 199226 | В |
| ΑU  | 9187933     | A    | 19920521 | AU 9187933  | Α            | 19911115 | 199229 |   |
| CA  | 2055702     | Α    | 19920518 | CA 2055702  | Α            | 19911115 | 199232 |   |
| ΕP  | 491468      | А3   | 19950426 | EP 91310575 | A            | 19911115 | 199545 |   |
| AU  | 668500      | В    | 19960509 | AU 9187933  | Α            | 19911115 | 199626 |   |
| US  | 5587723     | Α    | 19961224 | US 91792196 | A            | 19911113 | 199706 |   |
|     | •           |      |          | US 94226891 | Α            | 19940413 |        |   |
| CA  | 2055702     | С    | 19970527 | CA 2055702  | Α            | 19911115 | 199733 |   |
| ΕP  | 491468      | В1   | 19970813 | EP 91310575 | Α            | 19911115 | 199737 |   |
| DE  | 69127269    | E    | 19970918 | DE 627269   | A            | 19911115 | 199743 |   |
|     |             |      |          | EP 91310575 | Α            | 19911115 |        |   |
| JP  | 3073519     | B2   | 20000807 | JP 90312410 | $\mathbf{A}$ | 19901117 | 200042 |   |
| KR  | 237238      | В1   | 20000115 | KR 9120759  | Α            | 19911118 | 200114 |   |
|     |             |      |          |             |              |          |        |   |

Priority Applications (No Type Date): JP 90312410 A 19901117

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

A2 E 18 G09G-005/14 EP 491468

Designated States (Regional): DE FR GB SE

G06F-003/153 AU 9187933 Α G09G-005/36 CA 2055702 Α EP 491468 G09G-005/14 ΑЗ

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G06F-003/153 Previous Publ. patent AU 9187933
AU 668500
                   17 G09G-001/16
                                    Cont of application US 91792196
US 5587723
             Α
                       G09G-005/36
CA 2055702
             С
             B1 E 20 G09G-005/14
EP 491468
   Designated States (Regional): DE FR GB SE
                       G09G-005/14
                                    Based on patent EP 491468
DE 69127269
                                    Previous Publ. patent JP 4182698
JP 3073519
              B2
                   14 G09G-005/36
             В1
                      G09G-005/36
KR 237238
```

- ... stores picture and mask data in memory and generates masking signal for range of position data and uses signal to gate picture data
- ...Abstract (Basic): The display control circuit includes an external memory in which position data representing two points in a horizontal direction on a screen are stored together with still picture pattern data and character data. A counter is incremented for each dot or pixel on the screen. A masking signal is obtained in a range where each of the...
- ...windows of complex shape. Allows window to appear instantaneously. No need to update screen RAM. Reduced burden on CPU...
- ... Abstract (Equivalent): scan monitor while masking a range of the screen, the control apparatus comprising: picture data generating means for generating picture data; first position data generating means for generating first position data representing two points in a horizontal direction on the screen; second position data generating means for **generating** second position data representing two other points in a horizontal direction on the screen; first mask signal generating means for generating a first mask signal in accordance with the first position data during horizontal scanning of the raster scan monitor; second mask signal generating means for generating a second mask signal in accordance with the second position data; selecting means for selecting any one of a plurality of logical operations of the first mask signal and the second mask signal; third mask signal **generating** means for **generating** a third mask signal by performing one of the plurality of logical operations being selected by the selecting means; gating means coupled to the picture data generating means for gating the picture data received from the picture data generating means in accordance with the third mask signal; and video signal generating means for converting the picture data gated by the gating means into a video signal...
- ...Abstract (Equivalent): for displaying a picture on a screen of a raster scan monitor while masking a **portion** of said screen, said control apparatus comprising...
- ...a position data output device for **generating** position data representing two **points** in a horizontal direction on said screen...
- ...means for **changing** the position data of the two **points** between two or more horizontal lines on said screen...
- ...a picture data **generator** for **generating** picture data including means for **generating** moving object picture data and means for **generating** background picture data...
- ...a mask signal **generator** for **generating** a mask signal in accordance with said position data during horizontal scanning of said raster...
- ...a logic gate connected to said priority circuit and said mask signal generator for gating said picture data received from said priority

circuit in accordance with said mask ...

...a video signal **generator** for converting the picture data gated by said logic gate into a video signal compatible...

...wherein said means for **changing changes** the shape of the masked screen **portion** by **changing** the position data of the two **points** between two or more horizontal lines on said screen...

... Title Terms: STORAGE;

## 27/3,K/8 (Item 8 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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009056476 \*\*Image available\*\* WPI Acc No: 1992-183867/199222

XRPX Acc No: N92-138713

Computer system for recognition of handwritten digits - locates predetermined pixel group such as zip code from address block in digital pixel image representing columns and rows

Patent Assignee: ENVIRONMENTAL RES INST MICHIGAN (ENVI-N)

Inventor: MCCUBBREY D L

Number of Countries: 002 Number of Patents: 005

Patent Family:

| - | accirc rumary | •    |          |     |           |      |          |        |   |
|---|---------------|------|----------|-----|-----------|------|----------|--------|---|
| E | Patent No     | Kind | Date     | App | plicat No | Kind | Date     | Week   |   |
| M | 0 9208203     | A1   | 19920514 | WO  | 91US3624  | Α    | 19910523 | 199222 | В |
| Ţ | JS 5216725    | A    | 19930601 | US  | 90606578  | A    | 19901031 | 199323 |   |
| E | CP 555227     | A1   | 19930818 | EΡ  | 91915082  | A    | 19910523 | 199333 |   |
|   |               |      |          | WO  | 91US3624  | A    | 19910523 |        |   |
| J | JP 6501800    | W    | 19940224 | JΡ  | 91514410  | Α    | 19910523 | 199413 |   |
|   |               |      |          | WO  | 91US3624  | A '  | 19910523 |        |   |
| ľ | IS 5544259    | Α    | 19960806 | US  | 90606578  | A    | 19901031 | 199637 |   |
|   |               |      |          | US  | 9339813   | A    | 19930329 |        |   |
|   |               |      |          | US  | 94272949  | Α    | 19940711 |        |   |
|   |               |      |          | US  | 95541938  | A    | 19951010 |        |   |
|   |               |      |          |     |           |      |          |        |   |

Priority Applications (No Type Date): US 90606578 A 19901031; US 9339813 A 19930329; US 94272949 A 19940711; US 95541938 A 19951010

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes WO 9208203 A1 E 37 G06K-009/36 12 G06K-009/34 US 5216725 Α A1 E G06K-009/36 Based on patent WO 9208203 EP 555227 Based on patent WO 9208203 JP 6501800 W G06K-009/72 11 G06K-009/34 Div ex application US 90606578 US 5544259 Α Cont of application US 9339813 Cont of application US 94272949 Div ex patent US 5216725

... locates predetermined pixel group such as zip code from address block in digital pixel image representing columns and rows

... Abstract (Basic): calculates inter stroke distances and image strokes are thinned to enhance vertical line sepn. The **characters** are grouped into blocks, based on their separations, and the blocks skeletonised into lines extending...

...horizontal length of each block. The resulting images are dilated in a vertical direction to create box areas of uniform vertical thickness

. . .

- ...Abstract (Equivalent): A computer system for locating a predetermined group of characters from a plurality of handwritten characters characterized by a plurality of spaced, horizontally aligned, vertical strokes, said characters being chosen from a digital pixel image consisting of foreground pixels and background pixels set forth in an array of columns and row, said foreground image pixels defining said characters, said computer system comprising...
- ...means for assigning each of said plurality of characters to one of a plurality of discrete character lines...
- ...means for selecting a desired discrete character line from said plurality of discrete character lines...
- ...scanning means for **generating** a digital data stream corresponding to individual **pixels** of said digital **pixel** image...
- ...means for storing sequential **portions** of said digital data stream in a two-dimensional array...
- ...means for recognizing from said **stored** data array contiguous foreground image **pixels** corresponding to vertical strokes and defining adjacent pairs thereof...
- ...means for grouping the plurality of **characters** together into blocks based on the interstroke distance and on a **second** or subsequent peak of said histogram corresponding to a wider horizontal distance between said **characters**, said **characters** being separated by the interstroke distance and said blocks being separated by the wider distance...
- ...means for selecting said predetermined group of **characters** from those grouped **character** blocks associated with said selected discrete **character** line by using said interstroke distance...
- ...large enough to contain a ZIP code based on bounding box size is then selected. **Alternate** splits of words are formed and the best split is selected in which the last...

... Title Terms: PIXEL ;

27/3,K/9 (Item 9 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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009040715 \*\*Image available\*\*
WPI Acc No: 1992-168073/199221

XRPX Acc No: N92-126648

Display and transfer of graphical information - using combined matrix display and input matrix panel and storing position of writing element in memory for direct transfer to controller for pixel display

Patent Assignee: TELENORMA GMBH (TELN )

Inventor: FREITAG O; ZANELLA R

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No Kind Date Applicat No Kind Date Week
DE 4035899 A 19920514 DE 4035899 A 19901112 199221 B
DE 4035899 C2 19930902 DE 4035899 A 19901112 199335

Priority Applications (No Type Date): DE 4035899 A 19901112 Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

DE 4035899 A 5 G06F-003/03 DE 4035899 C2 5 G06F-003/033

... panel and storing position of writing element in memory for direct transfer to controller for pixel display

- ...Abstract (Basic): a coordinate plate (4) with conductors for x and y directions on both sides. At **points** excited by x and y drive signals, a **change** in temperature occurs and the display is activated. The signals are **generated** by the image memory (SP...
- ...A **second** coordinate plate (8) is separated from the display and responds to a non-contact writing...
- ... Abstract (Equivalent): The tactile display, for simultaneous display and transmission of hand-written **characters**, has coordinate conductor paths for electronically sensing the writing movement of a pen, the corresponding...
- ...to the display control (AZ-ST). This controls the coordinate voltages supplied to intersecting display points, to provide point heating of a heat-sensitive display foil (1) exhibiting light transparency variations at the heated points, for displaying the written character.

... Title Terms: STORAGE;

27/3,K/10 (Item 10 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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008456379 \*\*Image available\*\*

WPI Acc No: 1990-343379/199046

Related WPI Acc No: 1990-343380; 1990-343384

XRPX Acc No: N95-048183

Digital colour image processing system - controls processing unit to preferentially execute high-resolution processing for area where colour and binary images overlap each other

Patent Assignee: CANON KK (CANO )

Inventor: ICHIKAWA H; IKEDA Y; KITAMURA T; KURITA M; SUZUKI Y; KATO K; KATOH K

Number of Countries: 006 Number of Patents: 018

Patent Family:

| Pat | ent No   | Kind | Date     | App | plicat No | Kind | Date     | Week   |   |
|-----|----------|------|----------|-----|-----------|------|----------|--------|---|
| ΕP  | 397428   | Α    | 19901114 | EΡ  | 90304905  | Α    | 19900504 | 199046 | В |
| JΡ  | 2294161  | Α    | 19901205 | JP  | 89115685  | A    | 19890508 | 199104 |   |
| JΡ  | 2294880  | Α    | 19901205 |     |           |      |          | 199104 |   |
| JΡ  | 2295344  | A    | 19901206 | JP  | 89117001  | A    | 19890510 | 199104 |   |
| JΡ  | 2295353  | Α    | 19901206 | JP  | 89117054  | Α    | 19890510 | 199104 |   |
| JP  | 3072780  | Α    | 19910327 |     |           |      |          | 199119 |   |
| JΡ  | 3072781  | Α    | 19910327 | JP  | 89296788  | A    | 19891114 | 199119 |   |
| US  | 5206719  | A    | 19930427 | US  | 90519272  | A    | 19900504 | 199318 |   |
| ΕP  | 397428   | A3   | 19920610 | EΡ  | 90304905  | A    | 19900504 | 199332 |   |
| ΕP  | 397433   | A3   | 19920805 | EΡ  | 90304914  | A    | 19900504 | 199336 |   |
| US  | 5381248  | A    | 19950110 | US  | 90519498  | A    | 19900504 | 199508 |   |
|     |          |      |          | US  | 93117657  | A    | 19930908 |        |   |
| ΕP  | 397428   | В1   | 19970129 | ΕP  | 90304905  | A    | 19900504 | 199710 |   |
| DE  | 69029821 | E    | 19970313 | DĒ  | 629821    | Α    | 19900504 | 199716 |   |
|     |          |      |          | ΕP  | 90304905  | A    | 19900504 |        |   |

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19970401
                              US 90519840
US 5617224
               Α
                                              Α
                                                  19900504
                                                             199719
                              US 92936723
                                              Α
                                                  19920831
                              US 94191146
                                              Α
                                                  19940203
                              EP 90304914
                                              Α
                   19970416
                                                  19900504
                                                             199720
               B1
EP 397433
                   19970630
                              JP 89296788
                                              Α
                                                  19891114
                                                             199736
JP 9172544
               Α
                              JP 96303030
                                              Α
                                                  19891114
                   19990817
                              US 90519840
                                              Α
                                                  19900504
                                                             199939
US 5940192
               Α
                              US 92936723
                                              Α
                                                  19920831
                              US 94191146
                                              A
                                                  19940203
                              US 95477544
                                              Α
                                                  19950607
                                              Α
JP 3015308
               B2
                   20000306
                              JP 89296788
                                                  19891114
                                                             200016
                              JP 96303030
                                              Α
                                                  19891114
Priority Applications (No Type Date): JP 89296788 A 19891114; JP 89115685 A
  19890508; JP 89117001 A 19890510; JP 89117007 A 19890510; JP 89117010 A
  19890510; JP 89117054 A 19890510; JP 89117055 A 19890510; JP 89138941 A
  19890531; JP 96303030 A 19891114
Patent Details:
                                      Filing Notes
Patent No Kind Lan Pg
                         Main IPC
              Α
                   156
EP 397428
   Designated States (Regional): FR GB IT
JP 3015308
              В2
                    73 H04N-001/40
                                      Div ex application JP 89296788
                                      Previous Publ. patent JP 9172544
                   156 H04N-001/46
US 5206719
              Α
                   156
              А3
EP 397428
              A3
                   156
EP 397433
                   146 HO4N-001/46
                                      Cont of application US 90519498
US 5381248
              Α
EP 397428
              B1 E 153 H04N-001/387
   Designated States (Regional): DE FR GB IT
                        H04N-001/387
                                      Based on patent EP 397428
DE 69029821
              Ε
                   156 H04N-001/58
                                      Cont of application US 90519840
              Α
US 5617224
                                      Cont of application US 92936723
EP 397433
              B1 E 169 H04N-001/387
   Designated States (Regional): DE FR GB IT
                    73 H04N-001/40
                                      Div ex application JP 89296788
JP 9172544
              Α
                                      Cont of application US 90519840
                        H04N-001/46
US 5940192
              Α
                                      Cont of application US 92936723
                                      Div ex application US 94191146
                                      Div ex patent US 5617224
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- ...Abstract (Basic): stores the binary image and a device binarises the input colour image which is also **stored** in the memory...
- ...ADVANTAGE Improved reproducibility of black character and simple structure. (156pp Dwg.No.1/76)
- ...Abstract (Equivalent): A colour image forming apparatus comprising: means (A) for **generating** colour component data (100-102); processing means (B-G) for processing the colour component data...
- ...for inputting first image data representing a first image which can include both halftone and character image portions; second input means (M) for inputting second image data representing a second image; and synthesizing means (F) for synthesizing the first image data and the second image data outputting synthesized image data representing a synthesized image which is a combination of first and second image data, characterised in that the apparatus further comprises: means (I) for detecting character portions in the first image based on the first image data and generating a control signal (140) for controlling the resolution with which the character portions of the image are reproduced so that the resolution with which

- the character portions are reproduced is higher than the resolution with which the halftone image portions of the image are reproduced, and control mens (502) for making the control signal non-effective within any region of the synthesized image which includes the second image...
- ...Abstract (Equivalent): image represented by the mosaic-processed image data is lower than the predetermined resolution without **changing** either a size of the image or a number of **pixels** for the image, and, in the normal processing mode, outputs processed image data so that...
- ...The, image processing apparatus has a colour image signal input and extractor for the outline **portion** from the colour image signal. An output remover the colour image signal in an area other than the outline **portion** and outputs the colour image signal representing the extracted outline **portion** in multi-colors based on the input colour image signal. ADVANTAGE Can easily obtain desired...

# 27/3,K/11 (Item 11 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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008404707 \*\*Image available\*\* WPI Acc No: 1990-291708/199039

XRPX Acc No: N90-224580

Printed character texture discrimination - using discriminant function for discrimination of characters against any background

Patent Assignee: HITACHI LTD (HITA )

Inventor: MATSUSHIMA H; SAKOU H

Number of Countries: 003 Number of Patents: 005

Patent Family:

| racent ramity | •    |          |     |           |      |          |        |   |
|---------------|------|----------|-----|-----------|------|----------|--------|---|
| Patent No     | Kind | Date     | App | plicat No | Kind | Date     | Week   |   |
| EP 388725     | Α    | 19900926 | EΡ  | 90104476  | Α    | 19900308 | 199039 | В |
| EP 388725     | A3   | 19920812 | EΡ  | 90104476  | A    | 19900308 | 199336 |   |
| US 5448651    | A    | 19950905 | US  | 90496228  | A    | 19900320 | 199541 |   |
|               |      |          | US  | 94267552  | A    | 19940621 | •      |   |
| EP 388725     | В1   | 19960904 | ΕP  | 90104476  | A    | 19900308 | 199640 |   |
| DE 69028332   | E    | 19961010 | DE  | 628332    | A    | 19900308 | 199646 |   |
|               |      |          | EΡ  | 90104476  | A    | 19900308 |        |   |

Priority Applications (No Type Date): JP 8966122 A 19890320

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 5448651 A 9 G06K-009/34 Cont of application US 90496228

EP 388725 B1 E 17 G06K-009/20

Designated States (Regional): DE GB

DE 69028332 E G06K-009/20 Based on patent EP 388725

# Printed character texture discrimination...

- ...using discriminant function for discrimination of characters against any background
- ...Abstract (Basic): analyses the projection profile of the grey image background and sets a learning area A. Another learning area B consists of the printed characters together with part of the background. A discriminant function voltage Va and Vb as variables corresponding to learning...
- ...respectively, determines the output values of the voltages in order to

correctly discriminate between the characters and background...

- ... The discriminant function **produces** non-overlapping areas. The function is iteractive using Lag range's method of indeterminate coefficients. Average **pixel** density is determined...
- ... USE/ADVANTAGE E.g. to discriminate text and photograph opens in newspaper information **storage** system. Reliable. Retrieval of contents is easier when document is **stored** as an image...
- ... Abstract (Equivalent): first learning area (A) to an area containing only one kind of texture and a **second** learning areas (B) containing the other kind of texture by a first step of **producing pixel** density projecting profiles of said image in X- and Y-directions, a **second** step of determining a first range (La) in the **pixel** density projection profiles having a small degree of ruggedness and a **second** range (Lb) in said **pixel** density projection profiles having a conspicuous degree of ruggedness, and a third step of setting...
- ...first learning areas (A) to the area corresponding to the first range (La) and the **second** learning area (Lb) to the area corresponding to the **second** range (Lb); determining a discriminant function, having as variables, the **pixel** densities in the vicinity of a **pixel** being processed, such that the output values of said discriminant function for the **pixels** of said learning areas (A, B) from profiles having average values (Va, Vb) for each...
- ...of the dispersion values of the two profiles for the learning areas (A, B) is **smaller** than a predetermined value (S); and discriminating with the determined discriminant function the areas containing...
- ...other kind of texture by comparing the output values of said discriminant function for the **pixels** of the image with the profiles of the learning areas (A, B...
- ... Abstract (Equivalent): To reliably discriminate the **characters** only from the headlines having any background textures, the projection profile of a grey image...
- ...area. A learning area (B) in the area that includes background texture of a central **portion** and **characters** is set. A discriminant function having, as variables, characteristics that use **pixel** densities in the vicinity of a **pixel** which is processed so that output values of the discriminant function at each of the...
- ...The sum of dispersion values of the two profiles becomes smaller than a predetermined value, in order to discriminate in which area is included the pixel which is processed in the headline area. It is determined in which area of the background pattern or the characters the pixel is included depending upon whether the output value of the discriminant function is close to the value (Va) or to the value (Vb) for each of the pixels in the headline area, in order to discriminate the headline area into areas...

... Title Terms: CHARACTER;

27/3,K/12 (Item 12 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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008381075 \*\*Image available\*\*
WPI Acc No: 1990-268076/199035

XRPX Acc No: N90-207432

Digital data transmission system - stores portions of incoming data packet while it is still being received from data source and extracts froming characters

framing characters Patent Assignee: EASTMAN KODAK CO (EAST ) Inventor: WIND A S; WIND A G Number of Countries: 010 Number of Patents: 006 Patent Family: Applicat No Kind Date Patent No Kind Date US 89381904 19890719 199035 US 4949175 19900814 Α Α 19910207 199108 WO 9101607 Α EP 90911076 19900719 19910703 199127 EP 434815 Α 19900719 19920213 JP 90510472 Α 199213 JP 4500894 W EP 434815 B1 19950906 EP 90911076 Α 19900719 199540 19900719 WO 90US4053 Α 19900719 19951012 DE 622195 Α DE 69022195 Ε 19900719 EP 90911076 Α WO 90US4053 А 19900719 Priority Applications (No Type Date): US 89381904 A 19890719 Patent Details: Patent No Kind Lan Pg Main IPC Filing Notes WO 9101607 Designated States (Regional): AT BE CH DE DK ES EP 434815 Designated States (Regional): DE FR GB

JP 4500894 W 6

EP 434815 B1 E 15 H04N-001/00 Based on patent WO 9101607

Designated States (Regional): DE FR GB

DE 69022195 E  $\frac{\text{H04N-001/00}}{\text{Based on patent EP 434815}}$  Based on patent WO 9101607

- ... stores portions of incoming data packet while it is still being received from data source and extracts framing characters
- ...Abstract (Basic): The appts. increased includes a means for **storage** of **portions** of the incoming data packet in memory while the data packet is still being received from the data source. The frame **characters** are extracted from the incoming data stream into separate buffers. This allows the next data...
- ...due to the ability to perform the data validation testing immediately upon receiving the last **character** of the packet...
- ...USE/ADVANTAGE Transmitting/receiving digital images from diagnostic imaging source. **Reduces** data transfer time. (13pp Dwg.No. 6/11)
- ... Abstract (Equivalent): said digital data transmission system includes (I) a means (110,142) for transmitting lines of characters , each of which has a start of message character (114), a line type character (116), a plurality of image data characters (118), and an end of line character (120), and (II) means for receiving successive lines of characters , said means for receiving including an image memory (136) for storing said lines of characters; buffer means (128) for receiving the lines of characters and delivering the characters to said image memory (136); logic and control means (134) comprising a mode evaluator means (152) for (1) checking the correctness of the start of message character , (2) checking to see if the line contains size data, and if so, determining the line size and the number of lines in the image; pixel done counter means (144) for counting data characters transferred to the image memory and producing a signal representing the character count in order to generate a recorder line signal if the count is incorrect; means (132) for evaluating the parity of each character and generating a recorder line signal if

parity is violated; and a mode counter (130) for signalling the receipt of an end of line character so that the logic and control means (134) controls the transfer of the image data characters from the buffer means to the image memory, verifies that a full image is received if the end of line character represents an end of image, orders the next line if the end of line character is an end of line message or generates a recorder signal when a recorder line signal has been generated , said system being characterised by a. block counter means (148) for counting characters in an incoming line simultaneously with loading the characters into the buffer means and producing an end of block indication when a predetermined number of characters have been received. b. pixel counter means (146) for counting all data characters loaded into the buffer means (128) and producing a signal representing the character count, c. mode register means (150) for storing the end of line character externally to the buffer means; wherein said logic and control means (134) comprises means responsive

...to the signal from the mode counter (130) to determine that an end of line character (120) has been received from the mode register (150), in order to retrieve the character count from the pixel counter means (146), and if the number of characters left in the buffer means (128) is less than a predetermined number, generate a request for (160) another line of data, whereby received data is transferred into the image memory (136) during the...
...Title Terms: STORAGE;

27/3,K/13 (Item 13 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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008213525 \*\*Image available\*\* WPI Acc No: 1990-100526/199014

XRPX Acc No: N90-077698

Data processor for characters - allows shape features and series to be changed using stored information

Patent Assignee: BROTHER IND CO LTD (BRER ); BROTHER KOGYO KK (BRER )

Inventor: KANEGAE T; KAWAMOTO N; YOSHIDA H

Number of Countries: 004 Number of Patents: 006

Patent Family:

|            | -    |          |             |      |          |        |   |
|------------|------|----------|-------------|------|----------|--------|---|
| Patent No  | Kind | Date     | Applicat No | Kind | Date     | Week   |   |
| DE 3932024 | Α    | 19900329 | DE 3932024  | Α    | 19890926 | 199014 | В |
| GB 2224623 | A    | 19900509 | GB 8921723  | A    | 19890926 | 199019 |   |
| FR 2637101 | A    | 19900330 | FR 8912569  | Α    | 19890926 | 199020 |   |
| US 5018217 | A    | 19910521 | US 89410872 | Α    | 19890922 | 199123 |   |
| GB 2224623 | В    | 19921118 | GB 8921723  | Α    | 19890926 | 199247 |   |
| DE 3932024 | C2   | 19970710 | DE 3932024  | A    | 19890926 | 199732 |   |
|            |      |          |             |      |          |        |   |

Priority Applications (No Type Date): JP 899399 A 19890118; JP 88239940 A 19880926

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

DE 3932024 A 32 DE 3932024 C2 31

Data processor for characters - ...

...allows shape features and series to be changed using stored information

- ...Abstract (Basic): on the boundary data that defines the graphical shape of the symbol, e.g. alphabetic character, and determines the point data for reproduction on such as a laser printer. The system has a character ROM that stores the groups of boundary data defining a character. For example, the character 'F' may be defined by several groups (44,46,50). Sevis are described by separate groups (48) in a second room...
- ...the ROM memories to a programme in a separate ROM. Text entered is evaluated and **point** data determined for the defined **characters**. Values are entered into a RAM to supply a printer...
- ...ADVANTAGE Offers improved means of **generating** specific **character** form for various selected printing type.
- ... Abstract (Equivalent): A data conversion apparatus for converting outline data comprising multiple sets of segment data representative of the outline of a character , into pixel data representative of the character , each of said sets of segment data representing a corresponding segment of said outline of the character , said apparatus comprising: means for converting said outline data into said pixel data according to a conversion rule, each stroke of said character being defined by pixels which lie in the outline of said stroke as defined by a predetermined requirement, when said outline of said character is superimposed on a pixel coordinate space; ornamental end data conversion means operable independently of said conversion rule, for processing ornamental end data comprising at least one of said multiple sets of segment data of said outline data which represents an ornamental end portion of an ornamented stroke of said character , said ornamental end data converting means converting said ornamental end data into a predetermined block of pixel data associated with said ornamental end portion of said ornamented stroke
- ...Abstract (Equivalent): outline data into dot data according to a conversion rule that each stroke of the **character** is constituted by **picture elements** which lie in an outline of the stroke so as to satisfy a predetermined requirement, when said outline of the **character** is superimposed on a coordinated **pixel** screen...
- ...rule, for processing ornamental end data comprising at least one of the multiple sets of **segment** data of the outline data which defines a profile of an ornamental end **portion** of an ornamented stroke of the **character**.
- $\dots$  data which indicates that the ornamental end data defines the profile of the ornamental end  $\,$  portion  $\, .$
- ...data are converted into a predetermined block of dot data associated with the ornamental end **portion** of the ornamented stroke ...Title Terms: CHARACTER;

27/3,K/14 (Item 14 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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007485627 \*\*Image available\*\*
WPI Acc No: 1988-119561/198817

Related WPI Acc No: 1988-119562

XRAM Acc No: C88-053660 XRPX Acc No: N88-090824

Measurement of partial pressure of gases in a gas stream - using three optical detector channels and pressure and detectors

Patent Assignee: NELLCOR INC (NELL-N)

Inventor: BRAIG J R; CORENMAN J E; GALLUP D A; GOLDBERGER D S; RICHARDS E M

; ROJAS E P; STONE J H; COREMAN J E; FROJAS E P Number of Countries: 016 Number of Patents: 011

Patent Family:

| Pat | ent No  | Kind | Date     | App | olicat No | Kind | Date     | Week   |   |
|-----|---------|------|----------|-----|-----------|------|----------|--------|---|
| WO  | 8802889 | Α    | 19880421 | WO  | 87US2889  | A    | 19871016 | 198817 | В |
| ÜS  | 4817013 | Α    | 19890328 | US  | 86922043  | Α    | 19861017 | 198915 |   |
| JΡ  | 1501568 | W    | 19890601 | JΡ  | 87507126  | Α    | 19871016 | 198928 |   |
| CA  | 1316703 | С    | 19930427 | CA  | 549442    | Α    | 19871016 | 199322 |   |
| EΡ  | 551142  | A2   | 19930714 | EΡ  | 87907697  | A    | 19871016 | 199328 |   |
|     |         |      |          | ΕP  | 93101050  | A    | 19871016 |        |   |
| EΡ  | 551924  | A2   | 19930721 | ΕP  | 87907697  | Α    | 19871016 | 199329 |   |
|     |         |      |          | ΕP  | 93101101  | Α    | 19871016 |        |   |
| CA  | 1324638 | С    | 19931123 | CA  | 549442    | Α    | 19871016 | 199402 |   |
|     |         |      |          | CA  | 616565    | Α    | 19930203 |        |   |
| CA  | 1331292 | С    | 19940809 | CA  | 549442    | A    | 19871016 | 199434 |   |
|     | •       |      |          | CA  | 616561    | A    | 19930203 |        |   |
| CA  | 1333849 | С    | 19950110 | CA  | 549452    | Α    | 19871016 | 199511 |   |
| DE  | 3751308 | G    | 19950622 | DE  | 3751308   | A    | 19871016 | 199530 |   |
|     | •       |      |          | EΡ  | 87907697  | Α    | 19871016 |        |   |
|     |         |      |          | WO  | 87US2758  | A    | 19871016 |        |   |
| EΡ  | 551142  | B1   | 19970917 | EΡ  | 87907697  | A    | 19871016 | 199742 |   |
|     |         |      |          | EΡ  | 93101050  | A    | 19871016 |        |   |

Priority Applications (No Type Date): US 86922043 A 19861017

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 8802889 A E 119

Designated States (National): DK FI JP

Designated States (Regional): AT BE CH DE FR GB IT LU NL SE

590 US 4817013 Α

A2 E 72 G01N-001/24 Related to application EP 87907697 EP 551142 Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE

EP 551924 A2 E 71 A61B-005/08 Related to application EP 87907697

Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE CA 1324638 С A61B-005/08 Div ex application CA 549442

CA 1331292 С Div ex application CA 549442 G01N-001/22

DE 3751308 G06F-017/00 Based on patent EP 289581 Based on patent WO 8802890

EP 551142 B1 E 34 G01N-001/24 Div ex application EP 87907697 Div ex patent EP 289581

Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE

С G06F-015/46 CA 1316703 CA 1333849 С G01N-021/35

## Measurement of partial pressure of gases in a gas stream...

- ... Abstract (Basic): inlet to an analyser passes to an optical bench (236) through a flow shaper, to change the entering gas flow to a predetermined cross sectional shape. In the optical bench (236) three gas detector channel assemblies (304,306,308) are...
- ... The individual signals of the detectors are modulated and each has an arrangement for determining changes in detector sensitivity. The flow rate and barometric pressure within the gas path are measured...

- ...514). A circuit arrangement takes the detector outputs, pressure, flow rate, and temp. outputs, with **stored** signals representing the characteristics of the optical bench components, to output corrected signals representing the...
- ...The microprocessor corrects the signals indicative of **partial** gas pressure for temp. **changes** in detector sensitivity, collision broadening, cross correction, barometric pressure, and characterisation of the optical bench...
- ... USE/ADVANTAGE Partic. measuring **partial** pressures of constituent gases in respiratory gas streams for an anaesthetised patient mechanically intubated through...
- ... Abstract (Equivalent): pumping means to the airway adapter (106) and through the inlet filter (232) in a second direction that is opposite the first direction the airway adapter including a valve member (226) for restricting reverse fluid flow in the backflush conduit (172), a first section (240) having means through which a respiratory gas stream passes, a second section (210) fixed in an opening (236) in a sidewall of the first section (240) and extending outwardly therefrom the second section (210) having a central cavity (212) in fluid communication with the respiratory gas stream passing through the first section (240), the valve member (226) disposed in the cavity (212) in the second section (210), the valve member (226) having first and second means (218, 222) for fluid communications therethrough; the inlet filter (232) disposed across the central...
- ...adapted to mate in a fluid-tight relationship with the central cavity (212) of the **second section** (210) of the airway adapter (108), and the sampling conduit (174) being in fluid communication...
- ...in fluid communication with the respiratory gas stream through the coupling member (178) and the **second** means (222) in the valve member (226) when the coupling member (178) is mated with the **second section** (210...
- ... Abstract (Equivalent): **Partial** pressure of constituent gases in respiratory gas streams are measured in a system in which...
- ...removed from a patient and passed to a patient module into optical bench and circuitry **generating** signals representing **partial** pressures of CO2 and N2O. Respiratory events are distinguished in a display of a continuous...
- ...waveform is marked with labels denoting end-tidal events, inspired events, etc. in forms of **characters**. ADVANTAGE Rapid response time, capable of self-characterisation without calibration...
- ...processing circuits process the signals output from the analog processing circuits and other system circuitry. **Pixel** logic circuits/analog outputs process signals output from the display processing circuitry, providing analog output

27/3,K/15 (Item 15 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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007209403

WPI Acc No: 1987-206412/198729

XRPX Acc No: N87-154391

Transformation circuit to effect raster operations - reads pixel values corresp. to source image from array of addresses in bit map memory

Patent Assignee: NIPPON DIGITAL EQUIP KK (DIGI )

Inventor: FORRESTER N C; ROSE R C

Number of Countries: 018 Number of Patents: 012

Patent Family:

| Patent No  | Kind | Date     | App | olicat No | Kind | Date     | Week   |   |
|------------|------|----------|-----|-----------|------|----------|--------|---|
| ZA 8606373 | A    | 19870218 | ZA  | 866373    | A    | 19860802 | 198729 | В |
| EP 235471  | A    | 19870909 | EΡ  | 86401906  | А    | 19860829 | 198736 |   |
| AU 8661748 | A    | 19870903 |     |           |      |          | 198742 |   |
| FI 8603815 | A    | 19870829 |     |           |      |          | 198748 |   |
| BR 8604139 | A    | 19871117 |     |           |      |          | 198751 |   |
| DK 8604141 | A    | 19870829 |     |           |      |          | 198751 |   |
| CN 8606165 | A    | 19870909 |     |           |      |          | 198842 |   |
| US 4799173 | Α    | 19890117 | US  | 86834600  | Α    | 19860228 | 198906 |   |
| CA 1268870 | А    | 19900508 |     |           |      |          | 199025 |   |
| KR 9001964 | В·   | 19900327 |     |           |      |          | 199106 |   |
| EP 235471  | В1   | 19931124 | ĘΡ  | 86401906  | A    | 19860829 | 199347 |   |
| DE 3689331 | G    | 19940105 | DE  | 3689331   | A    | 19860829 | 199402 |   |
|            |      |          | EΡ  | 86401906  | A    | 19860829 |        |   |

Priority Applications (No Type Date): US 86834600 A 19860228 Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

ZA 8606373 A 41

EP 235471 A E

Designated States (Regional): BE CH DE FR GB IT LI NL SE

US 4799173 A 16

EP 235471 B1 E 24 G06F-015/62

Designated States (Regional): BE CH DE FR GB IT LI NL SE DE 3689331 G G06F-015/62 Based on patent EP 235471

- ... reads pixel values corresp. to source image from array of addresses in bit map memory
- ...Abstract (Basic): The source logic circuitry (55) produces pixel addresses for reading raster operations data from the source portion of the image memory while the drawn and origin vector destination address circuits (15,33) produce pixel addresses for writing the data into the destination portion of the image memory...
- ... The **pixel** addresses are sent to address collection circuits (57) where they are buffered, combined with refresh...
- ...many different transformation between source and destination images, e.g. user can display several different **font** sizes while employing a single **font** resource. (Provisional basic advised week 8722...
- ...Abstract (Equivalent): A transformation circuit for reading a first plurality of **pixel** values corresponding to a source image from a first array of addresses in a bit map memory having rows and columns of addresses and writing a **second** plurality of **pixel** values corresponding to a transformed version of the source image into a **second** array of addresses in the bit map memory, each address consisting of an X address...
- ...the destination origin vector being a transformation of the source origin vector, each vector comprising **pixel** values **stored** at a sequence of addresses, an address circuit (59) being connected to the bit map...

- ...origin vector destination address circuitry (13) for outputting a sequence of addresses at which the **pixel** values representing the destination origin vector are to be **stored** as a function of the X and Y components of the first address and the...
- ...the origin vector destination address circuitry for outputting a sequence of addresses at which the **pixel** values representing a destination drawn vector are to be **stored** as a function of the address output by the origin vector destination address circuitry and
- ...Y extents of the destination origin vector and connected to output either of first and **second** status signals to the switching circuitry as a function of the result of processing the...
- ...with a predetermined algorithm, the switching circuitry switching the origin vector destination address circuitry to **generate** a sequence of addresses which substantially lie along a vector which is rotated relata to...
- ...Y extents of a destination drawn vector and connected to output either of first and **second** status signals to the switching circuitry as a function of the result of processing the...
- ...with a predetermined algorithm, the switching circuitry switching the drawn vector destination address circuitry to **generate** a sequence of addresses which substantially lie along a vector which is rotated relative to...
- ... Abstract (Equivalent): The circuitry enables pixel signals, which represent information stored in a first section of a memory (and which information defines an image, or images to be viewed on a CRT display) to be transferred to a different section of memory and in the course of the transferal be: expanded or reduced in number; and/or rotated, by arbitrary angles from the original orientation of the image; and/or have the holes, or missing pixels, which occur because of the rotation by the arbitrary angles filled in, or replaced. (16pp)

... Title Terms: PIXEL;

# 27/3,K/16 (Item 16 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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004511833

WPI Acc No: 1986-015177/198603

XRPX Acc No: N86-011150

Scaleable typeface data producing method for display - rounding character base line up or down to nearest X-axis grid line which shifts whole character

Patent Assignee: MILES INC (MILE ); COMPUGRAPHIC CORP (COMP-N)

Inventor: HAWKINS T B

Number of Countries: 005 Number of Patents: 005

Patent Family:

|            | •    |          |             |      |          |        |   |
|------------|------|----------|-------------|------|----------|--------|---|
| Patent No  | Kind | Date     | Applicat No | Kind | Date     | Week   |   |
| EP 167838  | А    | 19860115 | EP 85107021 | Α    | 19850607 | 198603 | В |
| US 4675830 | А    | 19870623 | US 84628192 | Α    | 19840706 | 198727 |   |
| CN 8504927 | Α    | 19870107 |             |      |          | 198804 |   |
| EP 167838  | В1   | 19931222 | EP 85107021 | Α    | 19850607 | 199351 |   |
| DE 3587690 | G    | 19940203 | DE 3587690  | A    | 19850607 | 199406 |   |

### EP 85107021 A 19850607

Priority Applications (No Type Date): US 84628192 A 19840706

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

EP 167838 A E

Designated States (Regional): DE FR GB

EP 167838 B1 E 57 G06F-015/62

Designated States (Regional): DE FR GB

DE 3587690 G G06F-015/62 Based on patent EP 167838

Scaleable typeface data producing method for display...

...rounding character base line up or down to nearest X-axis grid line which shifts whole character

... Abstract (Basic): The contour of a character to be scaled is divided into selected segments. Each segment extends between a pair of points on the contour of the character, the pair of points defining two skeletal points. These are sub-set of the co-ordinates used to define the contour and are chosen from the list of co-ordinates because these points need to be aligned with the output bit-map grid. Next, all the coordinates in each segment are offset to bring the corresponding first skeletal point into alignment with an output grid. Seach segment is then scaled with an appropriate scale factor so as to bring the corresponding second skeletal point into alignment with the output grid. The character base line is rounded up or down to the nearest X-axis grid line, which shifts the whole character. The X-height and ascender height are then rounded to the nearest X-axis grid line. All points are scaled according to a determined A type Y-class or B-type Y-class...

...ADVANTAGE - Scales typefaces over variety of sizes and output resolutions while maintaining optimal **character** design...

... Abstract (Equivalent): A method of scaling character database from an input database stored in a digitally controlled machine for providing bit-map font data for graphic images, said input database containing data representative of the coordinates of a plurality of points located on at least one continuous, closed loop contour of a character , the contour being divided into a plurality of sequentially abutting and ordered scaling segments , with each scaling segment being located between a pair of points on the character contour, said pair of character contour points constituting a first skeletal point and a second skeletal point, said skeletal points being a subset of the character contour coordinates and each representing an important visual feature of the character such as the edge of a stem, or the top the character bowl, or the crotch at the intersection of two strokes, whereby said skeletal points in the database are associated in a tree-like structure, said method comprising the steps of: a) processing said input database by offsetting all coordinates in each scaling segment to bring the corresponding first skeletal point into alignment with an output grid which is a series of horizontal and vertical lines for determining the correct position of the skeletal points , b) processing further the coordinates of the scaling segments by linearly scaling each scaling segment with a scale factor that brings the corresponding second skeletal point into alignment with the output grid, whereby the skeletal points are X- and Y-skeletal points and these points align properly when the Y-and X-values are evenly divisible by a Y- and X- pixel dimension,

respectively, and whereby said offsetting and said scaling are done such that as a skeletal **point** is shifted the associated skeletal **points** in the direction towards the branches of the tree are shifted the same amount but the skeletal **points** towards the root of the tree are not **altered**.

...Abstract (Equivalent): The continuous, closed loop contour of the character is divided into a number of sequentially abutting and ordered scaling segments with each scaling segment being located between a pair of points on the character contour. The pair of character contour points constitute two skeletal points.

...All coordinates in each scaling **segment** are offset to bring the corresp. first skeletal **point** into alignment with an output grid. Each scaling **segment** is linearly scaled with a scale factor that brings the corresp. **second** skeletal **point** into alignment with the output grid. (27pp)

... Title Terms: PRODUCE ;

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27/3,K/17 (Item 17 from file: 350)
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DIALOG(R) File 350: Derwent WPIX

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004321212

WPI Acc No: 1985-148090/198525

XRPX Acc No: N85-111726

Halo generation for CRT display - uses logic circuit to alter video intensity at specific points on display generation

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Patent Family:

| Kind Date We   | ek                                      |
|----------------|---|
| A 19841017 198 | 525 B                                   |
| 198            | 536                                     |
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| 199            | 121                                     |
| 199            | 127                                     |
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Halo generation for CRT display ...

- ...uses logic circuit to alter video intensity at specific points on display generation
- ...Abstract (Basic): The video halo **generator** is incorporated in a video display system using a **picture element** matrix to form **characters** on the screen in response to a set of coordinates **generated** to represent a particular **character** and used to modulate the video signal to form the required image. The video bit signals are **stored**

- in memory and the memory scanned to locate a **character** which is to be highlighted...
- ...processor, which responds to the logic level obtained from scanning of the screen bit map, reducing the background intensity to half the normal level if a logic one is obtained, producing a flicker free halo round the character.
- ...ADVANTAGE Allows a **character** printed onto a screen image to be highlighted by the presence of a halo round the **character** to facilitate visual location and reading of the **character**.
- ... Abstract (Equivalent): Apparatus for generating a halo about symbols in video display means, comprising: Means (41) for displaying video data comprising a matrix of picture elements, denoted P, x, y; and means for illuminating the picture elements in response to applied signals; means (40), coupled to the video display means, for picture element coordinates, for providing signals generating representative of those coordinates, and for synchronising the illuminating means with the coordinates; means (43) having addresses corresponding to the picture elements , for storing video bit signals, denoted Bx,y; means (42) coupled to the storage means and to the coordinate generating means, for reading, in response to a signal from the coordinate geenrating means representing a generated coordinate i, j, the addresses corresponding to picture elements P i-1, j-1; Pi,j-1; Pi,J+1'; Pi-1,j; Pi...
- ...1; and PI+1, J+1; means (44), coupled to the address reading means for generating a digital signal: - sum Bx, y, Bi,j (bar) the summation representing a Boolean OR, and the product representing a Boolean AND, means (46), coupled to the coordinate generating means for generating , in response to a signal from the coordinate generating means representative of the generated coordinate i, j, a video background signal for producing a predetermined intensity of illumination of the picture element Pi, j ; means (45) coupled to the video display means (41), the digital signal generating means (44), and the video background signal generating means (46), for generating , in response to said digital signal having a value of ZERO and the video background signal, a first signal, and for generating , in response to said digital signal having a value of ONE and the video background signal, a second signal, the picture elemnt Pi, j, ; being illuminated at a predetermined fraction of said predetermined intensity by the illuminating means of the video displaying means, in response to the **second**0
- ...Abstract (Equivalent): Video Bit signals corresponding to a CRT picture element (PI,J) and the immediately surrounding CRT picture elements are read from an image memory. A digital signal is generated representing a Boolean Function. The intensity of the background illumination at PI,J, is unaltered...
- ...An address reader is provided comprising shift registers coupled to D type flip-flops. The **reduction** in intensity **creates** a halo around a symbol which is black in appearance, and distinguishes the symbol from

... Title Terms: GENERATE;

27/3,K/18 (Item 18 from file: 350) DIALOG(R)File 350:Derwent WPIX

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Reduction of matrix character size - has large matrix character format subjected to reduction process for input to work processor

Patent Assignee: RICOH KK (RICO )

Inventor: GOJO T

Number of Countries: 003 Number of Patents: 005

Patent Family:

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|------|-------------|--|--|---|--|--|
| Α    | 19850523    | DE 3440377   | A  | 19841105  | 198522   | В  |
| Α    | 19850605    | GB 8427488   | A  | 19841031  | 198523   |  |
| A    | 19851126    |  |  |   | 198550   |  |
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| С    | 19880804    |  |  |   | 198831   |  |
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Priority Applications (No Type Date): JP 83206914 A 19831105

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DE 3440377 A 28

Reduction of matrix character size...

- ...has large matrix character format subjected to reduction process for input to work processor
- ...Abstract (Basic): Characters, e.g. Japanese, represented in a 24x24 dot matrix format are subjected to a reduction process to produce 8x8 format for handling in a word processor system. The characters are stored in a memory (200), which is read into a reduction unit coupled to a display control module. The data is read as groups of 8...
- ...registers and three outputs (Q6, Q7, Q8) connect with AND gates (408) providing X axis **reduction** . A coupled OR gate connects with a pair of flip flops (414, 416) with outputs...
- ...Outputs are transmitted to OR gates (422) coupled to a register (424) providing Y axis **reduction** .
- ...ADVANTAGE Reduction without increased memory capacity
- ... Abstract (Equivalent): The character font reducing circuit uses a memory, the content of which is shiftable, and which stores the pixel data readout from the font memory. Theoutput signals of the storage unit are processed by the logic unit which divides the base dot matrix into a dot submatrix containing many dots of the basic matrix. The reduction is first carried out in the X direction forming blocks of many submatrix points. The latter are then shifted in one direction, and similar steps are carried out to...
- ...The system is based on the **font storage** unit (200) directly connected to the display controller and to the **font reducer** (400) linked to the display. The display controller includes the display unit, control set, output...
- ...ADVANTAGE System eliminates storage of reduced font data and ensures exact and precise reproduction of smaller printout. (14pp)
- ...Abstract (Equivalent): A method of **reducing** the size of a **character** which is represented by a data matrix having a plurality of rows of

data arranged in a first direction and a plurality of columns of data arranged in a **second** direction perpendicular to the first direction, said method comprising the steps of: (a) **producing** first data by dividing a row of the data matrix into a plurality of blocks...

- ...number of data and, then, assiging a single first data value to each block; (b) **producing second** data by shifting the row used in the step (a) in the first direction to...
- ...then dividing the shifted row into a plurality of blocks, and then assigning a single second data value to each block; (c) computing third data by associating the first and second data with each other in the second direction; (d) computing third data for a second predetermined number of subsequent by sequentially performing the steps (a), (b) and (c); (e) computing fourth data by associating in the second direction the third data computed by the step (d); and (f) computing the fourth data associated with the whole character data matrix by repeating the consecutive steps (a) through (e).r
- ...Abstract (Equivalent): Digitised **font** data representative of a **character font** is constructed in a dot matrix consisting of rows in an X direction and columns...

...USE/ADVANTAGE - Word processor, office computer. Reduces size of character font . (14pp)
Title Terms: REDUCE;